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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,661	11/30/2001	Chun-Yu Lee	B-4413 619365-7	8711

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EXAMINER

CHU, CHRIS C

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

10/010,661

Applicant(s)

LEE ET AL.

Examiner

Chris C. Chu

Art Unit

2815

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 30 March 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ they raise the issue of new matter (see Note below);
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1 - 3 & 7 - 24.

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

TOM THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Continuation of 5. does NOT place the application in condition for allowance because: The arguments presented in pages 7 - 12 of the Remarks have been carefully reviewed but fail to be persuasive because:

- (i) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the barrier structure which must be higher than the bump or electrode) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
- (ii) Tsukagoshi et al. clearly shows in e.g., Fig. 2 some electroconductive particles (12) are trapped in a closed area between the barrier (6) and the insulating layer (3) without any free movement of particles from one place to another as applicant asserted in his remarks and the other electroconductive particles (12) are move freely in spaces or gaps between the barrier (6) and the electrically conductive circuit (5) on the substrate (4). Thus, the barrier (6) of Tsukagoshi et al. separates the conductive particles (12) as recited by the rejected claim 1 (e.g., Fig. 2). Furthermore, Tsukagoshi et al. states in column 6, lines 26 - 27 that the barrier (6) can be insulating materials (e.g., polyimide; column 4, lines 15 - 17) as recited by the rejected claim 11. Therefore, the element (6) in Tsukagoshi et al. reads as a barrier layer as defined by claims 1 and 11.
- (iii) Applicant has argued that no motivation to combine the acknowledged prior art with Tsukagoshi et al. existed because the element (6) of Tsukagoshi et al. into the acknowledged prior art seems to be redundant and unnecessary. However, this argument is not persuasive because, as explained in the previous paragraphs, Tsukagoshi et al. teaches the barrier (6) as recited in the rejected claim 1 (e.g., Fig. 2), as well as the motivation to combine -to provide a smooth, uniform flow of adhesive from the center to the edge portions of the semiconductor chip during the bonding procedure (column 5, lines 22 - 30)- the barrier (6) of Tsukagoshi et al. into the acknowledged prior art. Furthermore, applicant should note that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).
- (iv) Applicant has argued that Tsukagoshi et al. does not disclose forming partitions between the bumps corresponding to the first pads and the second pads, as recited by claim 1 of the present application. However, this argument is not persuasive because Tsukagoshi et al. clearly shows in e.g., Fig. 2 that the bumps (7) are formed on the pads (5). Also, Tsukagoshi et al. clearly shows in e.g., Figs. 5A and 6B the plurality of third barrier ribs (6 in e.g., Figs. 5A and 6B) to be function as the partitions between the bumps (7) corresponding to the first pads (5, at the top-side) and the second pads (5, at the bottom).

Therefore, the combined structure of Tsukagoshi et al. and the acknowledged prior art disclose all of the claimed elements as recited in the rejected claims 1, 17 and 22 (see paragraph 4 of the final Office action for detail).

For the above reasons, the rejection is maintained..